

Notice of Allowability

Application No.

10/728,835

Examiner

Julie-Huyen L. Ngo

Applicant(s)

CHANG ET AL.

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2871

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 6/13/05.
2. ☒ The allowed claim(s) is/are 1-17.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No: _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

DETAILED ACTION

EXAMINER'S AMENDMENT

This application is in condition for allowance except for the presence of claims 18-33 to an invention non-elected without traverse on June 13, 2005.

Accordingly, these claims have been canceled as set forth below by authority of the Examiner.

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

The application has been amended as follows:

Claim

Claims 18-33 have been canceled.

The second claim 31 has been renumbered to be "claim 32" since claim 31 has been numbered twice.

Allowable Subject Matter

Claims 1-17 are allowed.

Reasons for Allowance

Claim 1 is allowable since there is no prior art of record that teaches a method of forming an array substrate for use in a liquid crystal device comprising the steps of:

- forming a first transparent electrode layer over an entire surface of the substrate to cover the patterned third insulating layer and contacting the exposed first portion of the drain electrode;
- coating an adhesive color film on the first transparent electrode layer, the adhesive color film having a color resin on a surface facing the first transparent electrode layer;
- irradiating a laser to portions of the adhesive color film corresponding to the pixel region; removing the adhesive color film after irradiating the laser to form a color film within the pixel region wherein the laser is irradiated;
- repeating coating the adhesive color film, irradiating the laser and removing the adhesive color film to form the color film within all of the pixel regions;
- forming a second transparent electrode layer over an entire surface of the substrate to cover the color filter and the first transparent electrode layer; and
- patterning the first and second transparent electrode layers to form first and second pixel electrodes, a double-layered gate pad terminal, and a double-layered data pad terminal.

Claims 2-17 are allowed since they depend on the allowed claim 1.

Conclusion

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Chang et al. (US 20040001170 A1) disclose a liquid crystal display device having an array substrate of a color filter on a thin film transistor structure, on which the black matrix is formed. However, this reference is same assignee (same owner LG Phipplip LCD Co.) with the instant application; therefore, the 103 cannot be rejected.

Kim et al. (US 20040109101A1) disclose a manufacturing method of a liquid crystal display device includes steps of forming liquid crystal display by patterning the passivation layer and the gate insulating layer by using the black matrix as an etching mask to expose the portion of the drain electrode, the gate pad, and the data pad, forming a first transparent conductive layer on the black matrix, wherein the first transparent conductive layer contacts the portion of the drain electrode, the gate pad, and the data pad, forming a color filter layer on the first transparent conductive layer in the opening, forming a second transparent conductive layer on the color filter layer, the second transparent conductive layer contacting the first transparent conductive layer, and forming a pixel electrode, a gate pad terminal and a data pad terminal by patterning the first and second transparent conductive layers, wherein the pixel electrode is disposed in the pixel area, the gate pad terminal is disposed on the gate pad, and the data pad terminal is disposed on the data pad. However, this reference is same

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assignee (same owner LG Phipplip LCD Co.) with the instant application; therefore, the 103 cannot be rejected.

Nagata et al. (US006118505A) disclose active matrix substrate includes: gate signal lines for supplying control signals and source signal lines for supplying video signals formed to cross each other; switching elements formed at crossings of the gate signal lines and the source signal lines in a matrix, the switching elements being connected to the gate signal lines and the source signal lines; an interlayer insulating film formed on the resultant active matrix substrate; and pixel electrodes formed on the interlayer insulating film in a matrix, wherein a color organic film is used as the interlayer insulating film, and laminated to the resultant active matrix substrate.

Contact Information

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Julie-Huyen L. Ngo whose telephone number is (571) 272-2295. The Examiner can normally be reached on M-Thursday.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's Supervisor, Mr. David Nelms can be reached at (571) 272-1787.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-1562.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

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Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>.

Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

June 25, 2006

A handwritten signature in black ink, appearing to read 'huyen', with a long, sweeping horizontal line extending to the left and a vertical line extending upwards to the right.

Julie-Huyen L. Ngo
Primary Examiner
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